September 3, 2008

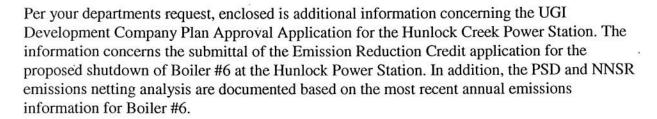
Mr. Thomas DiLazaro

Air Quality Program Manager Pennsylvania Department of Environmental Protection Northeast Regional Office 2 Public Square Wilkes Barre, PA 18711-0790

Re:

Hunlock Power Station Plan Approval Application Supplemental Information - ERC Application Form

Dear Mr. DiLazaro:



Should you have any questions regarding this application, please call Mike Mara of UGI at (610) 373-7999 ext. 175, or Mike Dennis of URS at (908) 256-4406.

Sincerely,

URS Corporation

Michael - Dennis @ URSCOM.

Michael G. Dennis

Senior Air Quality Specialist

Encl.

cc:

M. Mara/UGID J. Dayman/URS Mr. Thomas DiLazaro June 9, 2008 Page -2-

Sincerely,

URS Corporation

John Dayman, PE Project Manager

Cc:

Mika Mara, UGID Dave Stettler, UGID Lou James, UGID Mike Dennis, URS

Enclosures:

1. Plan Approval Application - Hunlock Power Station Repowering Project (3 copies)

2. Check No. 001043 in the amount of \$5,100.00, dated 05/28/08



Hunlock Power Station Repowering Project

Emission Reduction Credit Application

UGI Development Company ("UGID") owns and operates Hunlock Power Station ("Hunlock", the "facility" or the "station"), an existing electric generating station in Hunlock Township, Luzerne County, Pennsylvania. The facility currently consists of two retired and one active generating unit. Units 1 and 2 were retired in place in 1975. Unit 3, a coal-fired steam turbine-generator ("STG"), is nominally rated at 50 megawatts ("MW") and began commercial operation in September 1959.

UGID is proposing to construct and operate a combined-cycle power plant at the Hunlock site (the "Project") to replace the existing Unit 3 coal-fired boiler (Boiler #6) which will be retired in place. The new combined-cycle plant will consist of two GE LM6000 combustion turbines ("CTs") (designated as Units 5 and 6), will be added at the facility, and will operate in combined-cycle mode. The CTs will burn natural gas as the primary fuel and low-sulfur distillate as an alternative fuel (approximately one month each year).

A natural gas-fired boiler (utilizing less than 50 MMBtu/hr, nominal) is also proposed to provide heat to the existing administration building and related plant facilities building. This unit will replace two existing 20,000 lb/hr oil-fired auxiliary boilers.

The Project annual potential to emit (PTE) is documented in Section 3 of the Plan Approval Application submitted by UGID. Annual Project potential to emit (PTE) is summarized in Table 1. The Project PTE includes:

Combustion turbine emissions based on:

- Full year (8,760 hours) operation; at 100% load;
- Natural gas firing at up to 8,760 hours per year at annual average conditions (50°F);
- Low sulfur distillate firing at up to 600 hours per year at average winter ambient conditions (25°F);
- Duct-firing for 2,000 hours per year.

Steam boiler (under 50 mmBtu/hr)

- Natural-gas only
- Fuel usage limited to 99.8 MMscf/yr

Fuel oil storage tank emissions

Emissions based on EPA TANKS program

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UGID is proposing to use emission credits created by the shutdown of the existing coal-fired boiler to offset emission increases from the new units. The purpose of this letter is to provide additional information for the Prevention of Significant Deterioration ("PSD") nonattainment new source review ("NNSR") netting analyses the appropriate Emission Reduction Credit (ERC) forms needed to formalize the generated emissions offsets.

Table 2 shows the emissions from the existing Boiler #6 for the previous 5-years. Note that PM₁₀ emissions have been revised based on a recent stack test performed by UGID March 11, 2008. Prior to the stack test, UGID was using an AP-42 emission factor to estimate annual PM₁₀ emissions. UGID has revised their PADEP annual emissions statements to reflect this change.

The results of the PSD netting analysis are presented in Table 3. The results show that the Project is not subject to PSD review.

The area surrounding the UGID facility is designated as marginal non-attainment for ozone. As such, emissions of ozone precursors VOC and NOx are potentially subject to nonattainment NSR ("NNSR"). The applicability thresholds for NNSR are: VOC 50 tpy, NOx 100 tpy. Similar to PSD review, NNSR applicability is based on an emissions netting analysis. The results, which are also summarized in Table 3, demonstrate that the project is not subject to NNSR.

Based on discussions with PADEP, UGID is providing the Emission Reduction Credit (ERC) forms documenting the potential emission reductions once Boiler #6 is shutdown. As discussed above, the ERCs are based on the most recent 2-years of emissions data.

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Table 1: Annual Criteria Pollutant Emissions Summary

| | Annual Pollutant Emissions (tpy) | | | | | | | | |
|------------------------|----------------------------------|------|-------|-----------------|--------------------------------------|------|--------------------------------|--------|--|
| Operating Scenario | NO_x | со | voc | SO ₂ | PM ₁₀ / PM _{2.5} | TSP | H ₂ SO ₄ | NH_3 | |
| Combustion Turbines | 65.7 | 56.4 | 24.5 | 22.7 | 61.2 | 42.2 | 10.4 | 60.7 | |
| Steam Boiler | 1.8 | 4.2 | 0.3 | 0.1 | 0.4 | 0.1 | Neg | 0.0 | |
| Storage Tank | 0.0 | 0.0 | 0.008 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Project Total | 67.5 | 60.6 | 24.8 | 22.8 | 61.6 | 42.3 | 10.4 | 60.7 | |

Table 2: Boiler #6 Historical Emission (tpy)

| Pollutant | 2007 | 2006 | 2005 | 2004 | 2003 | 2006-2007 Average |
|--------------------------------|---------|---------|---------|---------|---------|----------------------|
| SO ₂ | 3,586.0 | 4,405.0 | 4,482.0 | 3,657.0 | 3,270.2 | 3995.50 |
| NO _x | 558.0 | 493.9 | 451.2 | 552.2 | 425.3 | 525.95 |
| PM_{10} | 277.9 | 278.8 | 266.0 | 293.6 | 243.8 | 278.36 |
| СО | 48.70 | 42.21 | 41.91 | 45.61 | 41.41 | 45.46 |
| VOC | 5.71 | 5.20 | 5.41 | 5.71 | 4.92 | 5.46 |
| Pb | 0.0090 | 0.0200 | 0.0200 | 0.0200 | 0.0100 | 0.01 |
| H ₂ SO ₄ | 3.65 | 3.75 | 3.50 | 3.74 | 3.38 | 3.70 |

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Table 3: Summary of PSD Netting Analysis

| Pollutant | PSD Significant Emission Rate (tpy) | Project Emission Increases (tpy) | Boiler #6 Emission Decrease (tpy) | Net Emissions Increase (Decrease) (tpy) | PSD Modification |
|---------------------------------------|-------------------------------------|---|--|---|---------------------|
| Carbon Monoxide | 100 | 60.6 | 45.5 | 15.1 | No |
| Nitrogen Oxides | 40 | 67.5 | 525.9 | -458.4 | No |
| Sulfur Dioxide (SO2) | 40 | 22.8 | 4497.7 | -3972.7 | No |
| Particulate Matter (TSP/PM) | 25 | 42.3 | | | No |
| PM10 | 15 | 61.6 | 278.4 | -216.8 | No |
| PM2.5 | 10 | 61.6 | 278.4 | -216.8 | No |
| Ozone (Volatile Organic Compounds) | 40 | 24.8 | 5.5 | 19.3 | (1) |
| Lead | . 0.6 | 0.002 | 0.019 | -0.017 | No |
| Asbestos | 0.007 | NA | | | No |
| Beryllium | 0.0004 | 0.00004 | | | No |
| Mercury | 0.1 | 0.0002 | | | No |
| Vinyl Chloride | 1 | NA | | | No |
| Fluorides | 3 | NA | | | No |
| Sulfuric Acid Mist | 7 | 10.4 | 3.7 | 6.7 | No |
| Hydrogen Sulfide | 10 | NA | | | No |
| Total Reduced Sulfur Compounds | 10 | NA | | | No |



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION **BUREAU OF AIR QUALITY**

EMISSION REDUCTION CREDIT (ERC) REGISTRY APPLICATION

- This ERC Registry Application may be used by a major or non-major facility.

 ERCs may be created only if the ERC Registry Application is filed within one year of actual emission reductions.

 Read instructions for the ERC Registry Application prior to completing this form.

| Section 1 - Identity and Location of Air Contain | mination Source |
|---|--|
| 1A. Facility/ | Corporation Information |
| Facility Name: UGI Development Company | Facility Address: |
| Federal ID Number: 23-1650159-1 | 1 Meridian Boulevard, Wyomissing PA 19610 |
| Telephone Number: (610) 743-7004 | Fax Number: (610) 374-4288 |
| 1B. Facilit (Complete if open | y Operator Information ator is different from company) |
| Operator's Name: | Company Address: |
| Telephone Number: | Fax Number: |
| 1C. Plan | t/Facility Information |
| Plant Name: | Plant Address: |
| Hunlock Creek Power Station | 390 US Rte 11, Hunlock Creek PA 18621 |
| Federal ID Number: 23-1650159-1 | |
| Telephone Number: (570) 830-1270 | Fax Number: |
| Municipality/Township: Hunlock Township | County: Luzerne |
| 1D | . Facility Type |
| Major Facility Non-Major Facility | Permit No. (Title V/RACT/Synthetic Minor): Title V 40-00005 |
| 1E. Contact I | Person for this Application |
| Name: | Mailing Address: |
| Michael Mara | 1 Meridian Boulevard, Wyomissing PA 19610 |
| Title: Director, Project Development | a national state of the state o |
| Telephone Number: (610) 743-7004 | Fax Number: (610) 374-4288 |
| 1F. Cer | tification Statement |
| § 4009(b)(2)) that I am authorized to make this Certification information and belief formed after reasonable inquiry, the complete. I further certify that the emission reductions we | fy under penalty of law as provided in 18 Pa. C.S.A. § 4904 and 35 P.S. ion on behalf of the facility identified in this application and based on e statements and information in this application are true, accurate and ill be maintained as set forth in this application and that the emission is, alternative emissions limitations, acid rain allowances or to generate |
| NRI Ma IB Director Pro Title | ject Development September 3, 2008 Date |

Section 2 - ERC-Generating Source Information Provide the following informs

| Provide the following information for | or the ERC-generating source |
|---|---|
| 2A. Type of Source: Coal-fired boiler | 2B. Plan Approval\Permit Number: 40-00005 |
| 2C. Manufacturer of Source: Foster Wheeler | 2D. Model Number: |
| 2E. Date of Installation of the Source: Jan 1959 | 2F. Air Cleaning Device: C01/C02 Electrostatic Precipitator |
| 2G. Source ID/Designation: Boiler #6 | 2H. Hourly Rated Capacity: 636.5 MMBtu/hr |
| 2I. Annual Throughput: | 2J. Other Information: |
| Section 3 - ERC General | ation Techniques |
| Check appropriate box(es) to identify appli | cable ERC-generating technique(s) |
| Shutdown of a source at an existing facility ☐ Shutdown of an existing facility ☐ Permanent curtailment of production or operation hours ☐ Improved control measures including improved control of further installation of an air pollution control devise beyond regulate ☐ Use of lower volatile organic compound (VOC) coatings than ☐ New technology and/or materials (not required by applicable) ☐ Process equipment modifications (not required by applicable) ☐ Incidental emissions reduction of nonhazardous air pollutant ☐ Economic Incentive Program ☐ Other: | ory requirements a required e law) law) |
| Section 4 - Intended use of ERCs Check appropriate box(es) to spec | ify intended use of ERCs |
| ✓ Netting/Offsetting ✓ Banking/Trading/Selling Purposes (Excess offsets after netter) | |
| Section 5 –Emissions Reduc | ction Initiation Date |
| Actual/Expected Date of Initiation of Emission Reduction: Late 2 | 2010/early 2011 |

Section 6 - Baseline Emission Rate Summary

Baseline emission rate (expressed in lbs/hr or tons/yr) is based on the lower of actual or allowable emissions calculated over two (2) calendar years immediately preceding the reduction unless otherwise approved by the Department.

| Calendar | Hours of | VC | C | NO: | | SO2 | |
|--|----------------------------|--------|--------|-------------------------------|--------|--------|---------|
| Year | Operation | lbs/hr | TPY | lbs/hr | TPY | lbs/hr | TPY |
| 2007 | | | 5.71 | | 558.0 | | 3586.0 |
| 2006 | | | 5.20 | | 493.9 | | 4405.0 |
| Average: | | | 5.46 | | 525.95 | | 3995.95 |
| corrected wi SIP limitation *RACT/MACT/I etc. | AER/BACT, | | | | | | |
| | Allowable fter emission | | | | | | 7 7 |
| Available ER | Cs: | | 5.46 | | 525.95 | | 3995.95 |
| Emission rates | s after reduction | : | | | | | |
| | 0 0 0 | | 0 0 | Tons/Year Tons/Year Tons/Year | | | |

| Calendar | Hours of | PM | 110 | CO | | H2S | 04 |
|----------------|----------------------------|----------------------|--------|------------------------|-------|--------|------|
| Year | Operation | lbs/hr | TPY | lbs/hr | TPY | lbs/hr | TPY |
| 2007 | | | 277.9 | | 48.71 | | 3.65 |
| 2006 | | | 278.8 | | 42.21 | | 3.75 |
| Average: | | | 278.35 | | 45.46 | | 3.70 |
| | | | | | | | |
| Revised | Allowable fter emission | | | | | | |
| Available ER | Cs: | | 278.35 | | 45.46 | | 3.70 |
| Emission rates | after reduction | : | | | l | | |
| PM10: _ | 0 | Lbs/Hour Lbs/Hour | 0 | Tons/Year Tons/Year | | 2/ | |
| H2SO4 | 0 | Lbs/Hour | 0 | | | | |

| Section 6 - Baseline Emission Rate Summary | 11 11 emissions calculated | | | | |
|--|---|--|--|--|--|
| Baseline emission rate (expressed in lbs/hr or tons/yr) is based over two (2) calendar years immediately preceding the reduction | on the lower of actual or allowable emissions calculated unless otherwise approved by the Department. | | | | |
| Do the above baseline emission estimates agree with emission shave been paid, if applicable? | statements submitted for PEDS/AIMS and any fees that | | | | |
| Yes No If "No", submit request to amend emissions inventory along with this application. | | | | | |
| Is the facility subject to any proposed maximum achievable co (MACT)? If yes, specify federal citation including Subpart. | ntrol technology standards for hazardous air pollutants | | | | |
| (MAC1)? If yes, specify rederal chanton including Suspensi | ⊠ No | | | | |
| Yes Subpart: | | | | | |
| Section 7 - Emission Qua | | | | | |
| Check appropriate box(es) for method(s) used to determine the summaries of records, measurements or calculation methods used | ne baseline emission rate. Attach copies of source tests, ed to estimate the baseline emissions. | | | | |
| Performance test data on same unit | K. | | | | |
| Performance test data on similar unit | | | | | |
| Continuous emission monitoring data | | | | | |
| Equipment vendor emission data and guarantees | | | | | |
| | | | | | |
| ☐ Emission factors from technical reference or article | | | | | |
| ☐ Emission factors from technical reference or article ☐ AP-42 Emission Factors Table Number: | _ | | | | |
| 9-02-02-02-02-02-02-02-02-02-02-02-02-02- | | | | | |

Section 8 - Emission Characteristics

Provide the following information to determine the ambient impact of the emissions reduction

| Provide the following information to determine the | |
|--|--|
| (a) Hours of Operation: Year round | (b) Hourly Rate (specify unit): 636.5 MMBtu/hr |
| (c) Stack Height (from ground level): | (d) Stack Inside Diameter: |
| (e) Exhaust Volume: | (f) Exhaust Temperature: |
| (g) Seasonal Period (months) Operated: NA | |
| Is the affected source in compliance with all applicable requiremed Yes No If "No", attach a list of the violation(s), da | nents? hate(s) and location(s) specified in the Notice of Violation. |
| List all attachments provided to evaluate this ERC Registry App. Cover letter summarizing reported emissions for 2006 and 200 project, and summary of PSD and NNSR netting analysis. | lication. 07, potential to emit from proposed combustion turbine |
| Previous Netting Transaction Date and Plan Approval Number: | I Company of the Comp |
| Comments: Central Office NSR Section: Reviewed By: Entry Date: Comments: | |